

REMARKS

This application has been carefully reviewed in light of the Office Action dated February 8, 2006. Claims 1, 2, 4, 6 and 11 are pending in the application, of which Claim 1 is independent. Reconsideration and further examination are respectfully requested.

Initially, Applicant thanks the Examiner for the indication that Claim 4 contains allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The specification was objected to because “(t)he specification does not disclose how thermal energy sources, heater elements, heat is directly radiantly energy.” Applicant understands the objection to mean that the Examiner contends that the specification does not disclose how a heater element can produce radiant energy that may be directly coupled to a thermally writable medium. Applicant respectfully directs the Examiner’s attention to page 3, lines 6 to 12, of the specification which states: “A direct thermal printer creates images on thermally active medium by applying light energy or radiant thermal energy created by a thermal heat source to create the heat necessary for generating an image on the thermal medium.” That heated objects radiate energy in the form of electromagnetic radiation, or “black body” radiation, is a well known physical phenomenon. The hotter the object, the higher the frequency distribution of the radiated energy. If a body is hot enough, the electromagnetic radiation may be perceived as light. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the this objection.

Claims 1, 2 and 6 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 6,195,115 (Yamaguchi). Reconsideration and withdrawal of this rejection are respectfully requested.

The present invention concerns a thermal printer that does not use thermal sources that are conductively coupled to a thermal print medium but instead uses thermal sources that are radiantly coupled to the thermal print medium.

Claim 1 is directed to a direct thermal printer, comprising a direct thermal print head comprising an array of thermal energy sources directly radiantly coupled to a thermal print medium, a thermal print medium drive mechanism holding the thermal print medium in noncontacting proximity to the direct thermal print head without a thermal energy modulator interposed between the thermal print medium and the direct thermal print head, and a controller coupled to the direct thermal print head and the thermal print medium drive mechanism, wherein the output power of the thermal energy sources are individually controllable by the controller. Therefore, Claim 1 calls for, in part, “thermal energy sources directly radiantly coupled to a **thermal print medium.**”

A prior-art reference anticipates a claim “only if each and every element as forth in the claim is found, either expressly or inherently described” in the prior art reference. (See M.P.E.P. § 2131). Applicant respectfully submits that the disclosures of Yamaguchi do not anticipate Claim 1 as a “thermal print medium” as in Claim 1 is not found, neither expressly nor inherently described in Yamaguchi.

Yamaguchi discloses an exposure head using linearly-aligned organic electroluminescent (EL) elements each composed of subpixels each emitting light of R, G, and B is used as a light source. Input color image data are dealt with as color data corresponding to each of the color components R, G, and B. For each color data, each of the organic EL elements is caused to emit light in accordance with line data for one line corresponding to all organic EL elements composing the exposure head, and a photosensitive material is exposed to the light.

(See abstract). As such, the invention of Yamaguchi relies on the use of a photosensitive material for operation as the exposure head emits various colors of light using subpixels of EL elements.

In rejecting Claim 1 as being anticipated by Yamaguchi, the Office Action contends that the photosensitive material of Yamaguchi is equivalent to the thermal print medium featured in Claim 1 of the present application. Applicant respectfully disagrees with this contention and submits that the thermal print medium of Claim 1 and the photosensitive material of Yamaguchi are not equivalent. As disclosed in Yamaguchi, an image is formed on the photosensitive material by merely exposing the photosensitive material to light emitted from the EL exposure head. In the present application, the thermal print medium requires the application of thermal energy from a thermal energy source. As is well known with thermal print media, merely exposing the thermal print media to light will not form an image on the thermal print media. As such, an attempt to use the thermal print medium of the present invention with the exposure head of Yamaguchi will fail as the light emitted by the exposure head of Yamaguchi will fail to form an image on the thermal print medium. Therefore, Applicant's thermal print medium is not expressly described in Yamaguchi. Furthermore, Applicant has carefully reviewed Yamaguchi and can not find either a disclosure or suggestion that the exposure head is operable to generate an image using thermal print media.

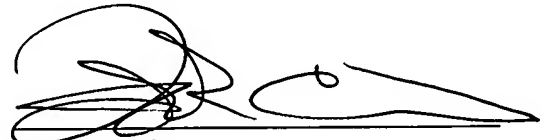
As the thermal print medium of the present invention is neither expressly nor inherently described in Yamaguchi, Applicant submits that Claim 1 is now in condition for allowance and respectfully requests same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

Applicant believes that the present application is now in condition for allowance. However, if after review of the above remarks, the Examiner does not concur, the Examiner is respectfully requested to contact Applicant's representative as indicated below in order to resolve any remaining issues.

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Frank L. Cire', with a long horizontal flourish extending to the right.

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